

C L A I M S

We Claim:

- 1 1. A method of adaptively managing connectivity for a mobile device comprising:
 - 2 a. obtaining a signal from each access point available to the mobile device, wherein
 - 3 the signal includes source information; and
 - 4 b. obtaining characteristic information about each access point and characteristics of
 - 5 service provided by the access point using the source information.
- 1 2. The method as claimed in claim 1 wherein the signal is a beacon signal.
- 1 3. The method as claimed in claim 1 further comprising comparing the characteristic
- 2 information to determine a preferred access point.
- 1 4. The method as claimed in claim 3 wherein the preferred access point is an access point
- 2 which most closely matches criteria.
- 1 5. The method as claimed in claim 2 wherein the source information includes an address and
- 2 is resident within an SSID of the beacon signal.
- 1 6. The method as claimed in claim 5 wherein the address is a URL address.
- 1 7. The method as claimed in claim 5 wherein the address is an IPv6 address.
- 1 8. The method as claimed in claim 1 wherein the source information includes the
- 2 characteristic information.

1 9. The method as claimed in claim 1 further comprising associating a separate IPv6 address
2 for communications relative to each separate application used by the mobile device.

1 10. The method as claimed in claim 1 further comprising associating a separate IPv6 address
2 for communications relative to each separate application used with each separate connection by
3 the mobile device.

1 11. The method as claimed in claim 1 wherein the characteristic information is obtained for
2 an access point without forming a connection to the access point.

1 12. The method as claimed in claim 1 wherein an access point is available if the mobile
2 device is within a range to communicate with the access point.

1 13. The method as claimed in claim 1 wherein the characteristics of service include one or
2 more of bandwidth, speed and cost.

1 14. A method of adaptively managing connectivity for a mobile device comprising:
2 a. managing communications for the mobile device using a plurality of applications;
3 and
4 b. associating a separate IPv6 address for communications relative to each separate
5 application.

1 15. The method as claimed in claim 14 further comprising sending communications from the
2 mobile device through one of a plurality of interfaces based on the separate IPv6 address and
3 corresponding application.

1 16. The method as claimed in claim 14 further comprising receiving communications at the
2 mobile device through one of a plurality of interfaces based on the separate IPv6 address and
3 corresponding application.

1 17. The method as claimed in claim 14 further comprising:
2 a. obtaining a beacon signal from each access point available to the mobile device,
3 wherein the beacon signal includes source information;
4 b. obtaining characteristic information about each access point and characteristics of
5 service provided by the access point using the source information;
6 c. determining a preferred access point by comparing the characteristic information
7 to criteria and determining the access point which most closely matches the
8 criteria; and
9 d. establishing a connection with the preferred access point.

1 18. A method of adaptively managing connectivity for a mobile device comprising:
2 a. obtaining a beacon signal from each access point available to the mobile device,
3 wherein the beacon signal includes source information;
4 b. obtaining characteristic information about each access point and characteristics of
5 service provided by the access point using the source information; and
6 c. determining a preferred access point by comparing the characteristic information
7 to criteria and determining the access point which most closely matches the
8 criteria.

1 19. The method as claimed in claim 18 further comprising establishing a connection with the
2 preferred access point.

- 1 20. The method as claimed in claim 19 wherein the connection is established using
- 2 communications complying with an IEEE 802.11 standard.

- 1 21. The method as claimed in claim 18 wherein the source information includes an address
- 2 and is resident within an SSID of the beacon signal.

- 1 22. The method as claimed in claim 21 wherein the address is a URL address.

- 1 23. The method as claimed in claim 21 wherein the address is an IPv6 address.

- 1 24. The method as claimed in claim 18 wherein the source information includes the
- 2 characteristic information.

- 1 25. The method as claimed in claim 18 wherein an access point is available if the mobile
- 2 device is within a range to communicate with the access point.

- 1 26. The method as claimed in claim 18 wherein the characteristics of service include one or
- 2 more of bandwidth, speed and cost.

- 1 27. The method as claimed in claim 18 wherein the characteristic information is obtained for
- 2 an access point without forming a connection to the access point.

- 1 28. The method as claimed in claim 18 further comprising associating a separate IPv6 address
- 2 for communications relative to each separate application used by the mobile device.

1 29. The method as claimed in claim 18 further comprising associating a separate IPv6 address
2 for communications relative to each separate application used with each separate connection by
3 the mobile device.

1 30. A network connection manager configured to adaptively manage connectivity for a
2 mobile device, the network connection manager comprising:

- 3 a. a communications interface configured to receive communications from access
4 points available to the mobile device, the communications including a beacon
5 signal from each available access point, wherein the beacon signal includes source
6 information; and
- 7 b. a controller coupled to the communications interface to obtain characteristic
8 information about each access point and characteristics of service provided by the
9 access point using the source information.

1 31. The network connection manager as claimed in claim 30 wherein the controller compares
2 the characteristic information to determine a preferred access point.

1 32. The network connection manager as claimed in claim 31 wherein the preferred access
2 point is an access point which most closely matches criteria.

1 33. The network connection manager as claimed in claim 32 wherein the criteria is defined by
2 a user.

1 34. The network connection manager as claimed in claim 30 wherein the source information
2 includes an address and is resident within an SSID of the beacon signal.

1 35. The network connection manager as claimed in claim 34 wherein the address is a URL
2 address.

1 36. The network connection manager as claimed in claim 34 wherein the address is an IPv6
2 address.

1 37. The network connection manager as claimed in claim 30 wherein the source information
2 includes the characteristic information.

1 38. The network connection manager as claimed in claim 30 wherein the characteristic
2 information is obtained for an access point without forming a connection to the access point.

1 39. The network connection manager as claimed in claim 30 wherein an access point is
2 available if the mobile device is within a range to communicate with the access point.

1 40. The network connection manager as claimed in claim 30 wherein the characteristics of
2 service include one or more of bandwidth, speed and cost.

1 41. The network connection manager as claimed in claim 30 wherein the controller associates
2 a separate IPv6 address for communications relative to each separate application used by the
3 mobile device.

1 42. The network connection manager as claimed in claim 30 wherein the controller associates
2 a separate IPv6 address for communications relative to each separate application used with each
3 separate connection by the mobile device.

1 43. A network connection manager for adaptively managing connectivity for a mobile device
2 comprising:

3 a. means for interfacing for receiving communications from access point available to
4 the mobile device, the communications including a beacon signal from each
5 available access point, wherein the beacon signal includes source information; and
6 b. means for controlling coupled to the means for interfacing for obtaining
7 characteristic information about each access point and characteristics of service
8 provided by the access point using the source information.

1 44. The network connection manager as claimed in claim 43 wherein the means for
2 controlling compares the characteristic information to determine a preferred access point.

1 45. The network connection manager as claimed in claim 44 wherein the preferred access
2 point is an access point which most closely matches criteria.

1 46. The network connection manager as claimed in claim 45 wherein the criteria is defined by
2 a user.

1 47. The network connection manager as claimed in claim 43 wherein the source information
2 includes an address and is resident within an SSID of the beacon signal.

1 48. The network connection manager as claimed in claim 47 wherein the address is a URL
2 address.

1 49. The network connection manager as claimed in claim 47 wherein the address is an IPv6
2 address.

1 50. The network connection manager as claimed in claim 43 wherein the source information
2 includes the characteristic information.

1 51. The network connection manager as claimed in claim 43 wherein the characteristic
2 information is obtained for an access point without forming a connection to the access point.

1 52. The network connection manager as claimed in claim 43 wherein an access point is
2 available if the mobile device is within a range to communicate with the access point.

1 53. The network connection manager as claimed in claim 43 wherein the characteristics of
2 service include one or more of bandwidth, speed and cost.

1 54. The network connection manager as claimed in claim 43 wherein the means for
2 controlling associates a separate IPv6 address for communications relative to each separate
3 application used by the mobile device.

1 55. The network connection manager as claimed in claim 43 wherein the means for
2 controlling associates a separate IPv6 address for communications relative to each separate
3 application used with each separate connection by the mobile device.

1 56. A network connection manager configured to adaptively manage connectivity for a
2 mobile device, the network connection manager comprising:
3 a. a plurality of interfaces each configured to send and receive communications for
4 one of a plurality of applications used by the mobile device; and
5 b. a controller coupled to the plurality of interfaces to associate a separate IPv6
6 address for communications relative to each separate application, wherein only

7 communications having an address corresponding to an application and a
8 corresponding interface are sent and received through the interface.

1 57. A network of devices comprising:

2 a. a plurality of access points each including:

8 b. a mobile device configured to communicate with the wireless interface and

9 including a network connection manager which adaptively manages connectivity
10 for the mobile device, the network connection manager comprising:

16 the source information.

1 59. The network of devices as claimed in claim 58 wherein the preferred access point is an

¹ See 68. The author of this article is N. M. 52, who is the author of the addendum.

1 61. The network of devices as claimed in claim 57 wherein the source information includes
2 an address and is resident within an SSID of the beacon signal.

1 62. The network of devices as claimed in claim 61 wherein the address is a URL address.

1 63. The network of devices as claimed in claim 61 wherein the address is an IPv6 address.

1 64. The network of devices as claimed in claim 57 wherein the source information includes
2 the characteristic information.

1 65. The network of devices as claimed in claim 57 wherein the characteristic information is
2 obtained for an access point without forming a connection to the access point.

1 66. The network of devices as claimed in claim 57 wherein an access point is available if the
2 mobile device is within a range to communicate with the access point.

1 67. The network of devices as claimed in claim 57 wherein the characteristics of service
2 include one or more of bandwidth, speed and cost.

1 68. The network of devices as claimed in claim 57 wherein the controller associates a
2 separate IPv6 address for communications relative to each separate application used by the
3 mobile device.

1 69. The network of devices as claimed in claim 57 wherein the controller associates a
2 separate IPv6 address for communications relative to each separate application used with each
3 separate connection by the mobile device.